

IN THE CLAIMS:

Please amend the claims as shown below. The claims, as pending in the application, read as follows:

1. (Currently Amended) An image processing apparatus for executing an error diffusion process to a plurality of density components, comprising:

a processor and a memory;

a first processing unit that executes the error diffusion process by changing at least one of a quantization threshold value and a quantization diffusion coefficient which are used for the error diffusion process on the basis of information on one of the density components to be processed;

a second processing unit that executes the error diffusion process by setting, into fixed values, the quantization threshold value and the quantization diffusion coefficient which are used for the error diffusion process, wherein the error diffusion process by the second processing unit requires a lighter processing load than the error diffusion process by the first processing unit; and

an error diffusion processing control unit that controls to execute, by the first processing unit, the error diffusion process to a first density component among the plurality of density components, and by the second processing unit, the error diffusion process to a second density component among the plurality of density components

wherein the first and second density components have respective different component types and wherein one dot output based on the first density component has a lower density than one dot output based on the second density component, and

wherein the quantization diffusion coefficient is used to diffuse an error caused by a quantization process which is performed using the quantization threshold value to neighboring pixels.

2. (Canceled)

3. (Previously Presented) An apparatus according to claim 1, wherein said first processing unit is an error diffusion process for executing quantization on the basis of information of the other density components among said plurality of density components.

4. to 6. (Canceled)

7. (Currently Amended) An image processing method of executing an error diffusion process to a plurality of density components, comprising:

a computer executing the steps comprising:

a first processing step of executing the error diffusion process by changing at least one of a quantization threshold value and a quantization diffusion coefficient which are used for the error diffusion process on the basis of information on one of the density components to be processed;

a second processing step of executing the error diffusion process by setting, into fixed values, the quantization threshold value and the quantization diffusion coefficient which are used for the error diffusion process, wherein the error diffusion

process by the second processing step requires a lighter processing load than the error diffusion process by the first processing step; and

an error diffusion processing control step of controlling to execute, by the first processing step, the error diffusion process to a first density component among the plurality of density components, and by the second processing step, the error diffusion process to a second density component among the plurality of density components,

wherein the first and second density components have respective different component types and wherein one dot output based on the first density component has a lower density than one dot output based on the second density component, and

wherein the quantization diffusion coefficient is used to diffuse an error caused by a quantization process which is performed using the quantization threshold value to neighboring pixels.

8. (Canceled)

9. (Original) A method according to claim 7, wherein said first processing step is an error diffusion process for executing quantization on the basis of information of the other density components among said plurality of density components.

10. to 12. (Canceled)

13. (Currently Amended) A computer-readable storage medium on which is stored an image processing program for executing an error diffusion process to a plurality of density components, wherein said program comprises:

a first processing step of executing the error diffusion process by changing at least one of a quantization threshold value and a quantization diffusion coefficient which are used for the error diffusion process on the basis of information on one of the density components to be processed;

a second processing step of executing the error diffusion process by setting, into fixed values, the quantization threshold value and the quantization diffusion coefficient which are used for the error diffusion process, wherein the error diffusion process by the second processing step requires a lighter processing load than the error diffusion process by the first processing step; and

an error diffusion processing control step of controlling to execute, by the first processing step, the error diffusion process to a first density component among the plurality of density components, and by the second processing step, the error diffusion process to a second density component among the plurality of density components,

wherein the first and second density components have respective different component types and wherein one dot output based on the first density component has a lower density than one dot output based on the second density component, and

wherein the quantization diffusion coefficient is used to diffuse an error caused by a quantization process which is performed using the quantization threshold value to neighboring pixels.

14. (Canceled)

15. (Previously Presented) A computer-readable storage medium according to claim 13, wherein said first processing step is an error diffusion process for executing quantization on the basis of information of the other density components among said plurality of density components.

16. to 24. (Canceled)

25. (Currently Amended) An image processing apparatus for executing an error diffusion process to a plurality of density components, comprising:

a processor and a memory;

a first processing unit that executes the error diffusion process by changing at least one of a quantization threshold value and a quantization diffusion coefficient which are used for the error diffusion process on the basis of information on one of the density components to be processed;

a second processing unit that executes the error diffusion process by setting, into fixed values, the quantization threshold value and the quantization diffusion coefficient which are used for the error diffusion process, wherein the error diffusion process by the second processing unit requires a lighter processing load than the error diffusion process by the first processing unit; and

an error diffusion processing control unit that controls to execute, by the first processing unit, the error diffusion process to a first density component among the

plurality of density components, and by the second processing unit, the error diffusion process to a second density component among the plurality of density components,

wherein the first and second density components have respective different component types and wherein one droplet output based on the first density component has a smaller size than one droplet output based on the second density component, and

wherein the quantization diffusion coefficient is used to diffuse an error caused by a quantization process which is performed using the quantization threshold value to neighboring pixels.

26. (Currently Amended) A method for an image processing apparatus for executing an error diffusion process to a plurality of density components, comprising:

a computer performing the steps comprising:

a first processing step for executing the error diffusion process by changing at least one of a quantization threshold value and a quantization diffusion coefficient which are used for the error diffusion process on the basis of information on one of the density components to be processed;

a second processing step for executing the error diffusion process by setting, into fixed values, the quantization threshold value and the quantization diffusion coefficient which are used for the error diffusion process, wherein the error diffusion process by the second processing step requires a lighter processing load than the error diffusion process by the first processing step; and

an error diffusion processing control step for controlling to execute, by the first processing step, the error diffusion process to a first density component among the

plurality of density components, and by the second processing step, the error diffusion process to a second density component among the plurality of density components,

wherein the first and second density components have respective different component types and wherein one droplet output based on the first density component has a smaller size than one droplet output based on the second density component, and

wherein the quantization diffusion coefficient is used to diffuse an error caused by a quantization process which is performed using the quantization threshold value to neighboring pixels.

27. (Currently Amended) A computer-readable storage medium on which is stored a program for executing an error diffusion process to a plurality of density components, the program comprising:

a first processing step for executing the error diffusion process by changing at least one of a quantization threshold value and a quantization diffusion coefficient which are used for the error diffusion process on the basis of information on one of the density components to be processed;

a second processing step for executing the error diffusion process by setting, into fixed values, the quantization threshold value and the quantization diffusion coefficient which are used for the error diffusion process, wherein the error diffusion process by the second processing step requires a lighter processing load than the error diffusion process by the first processing step; and

an error diffusion processing control step for controlling to execute, by the first processing step, the error diffusion process to a first density component among the

plurality of density components, and by the second processing step, the error diffusion process to a second density component among the plurality of density components,

wherein the first and second density components have respective different component types and wherein one droplet output based on the first density component has a smaller size than one droplet output based on the second density component, and

wherein the quantization diffusion coefficient is used to diffuse an error caused by a quantization process which is performed using the quantization threshold value to neighboring pixels.

28. (Previously Presented) An apparatus according to claim 1, wherein the plurality of density components correspond to respective different colorants used in image formation, and wherein a first one of the colorants corresponding to the first density component and a second one of the colorants corresponding to the second density component have similar colors and wherein the first colorant has a lower density than the second colorant.

29. (Previously Presented) An apparatus according to claim 1, wherein one dot outputted based on the first density component has a smaller size than one dot based on the second density component.

30. (New) An apparatus according to Claim 1, wherein the first processing unit executes a modulation type error diffusion process, and the second processing unit executes a fixed type error diffusion process.